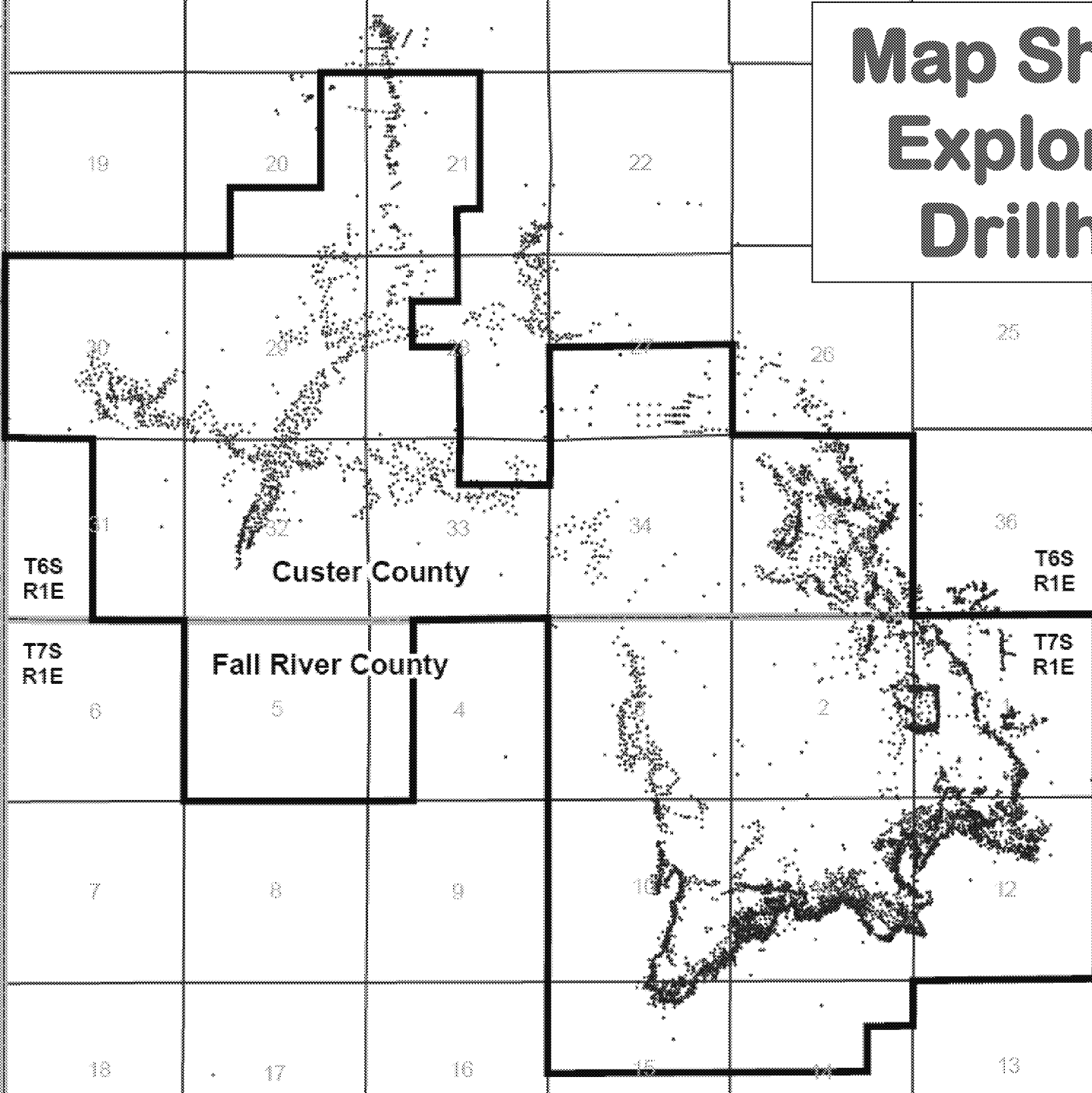


# Map Showing Exploration Drillholes



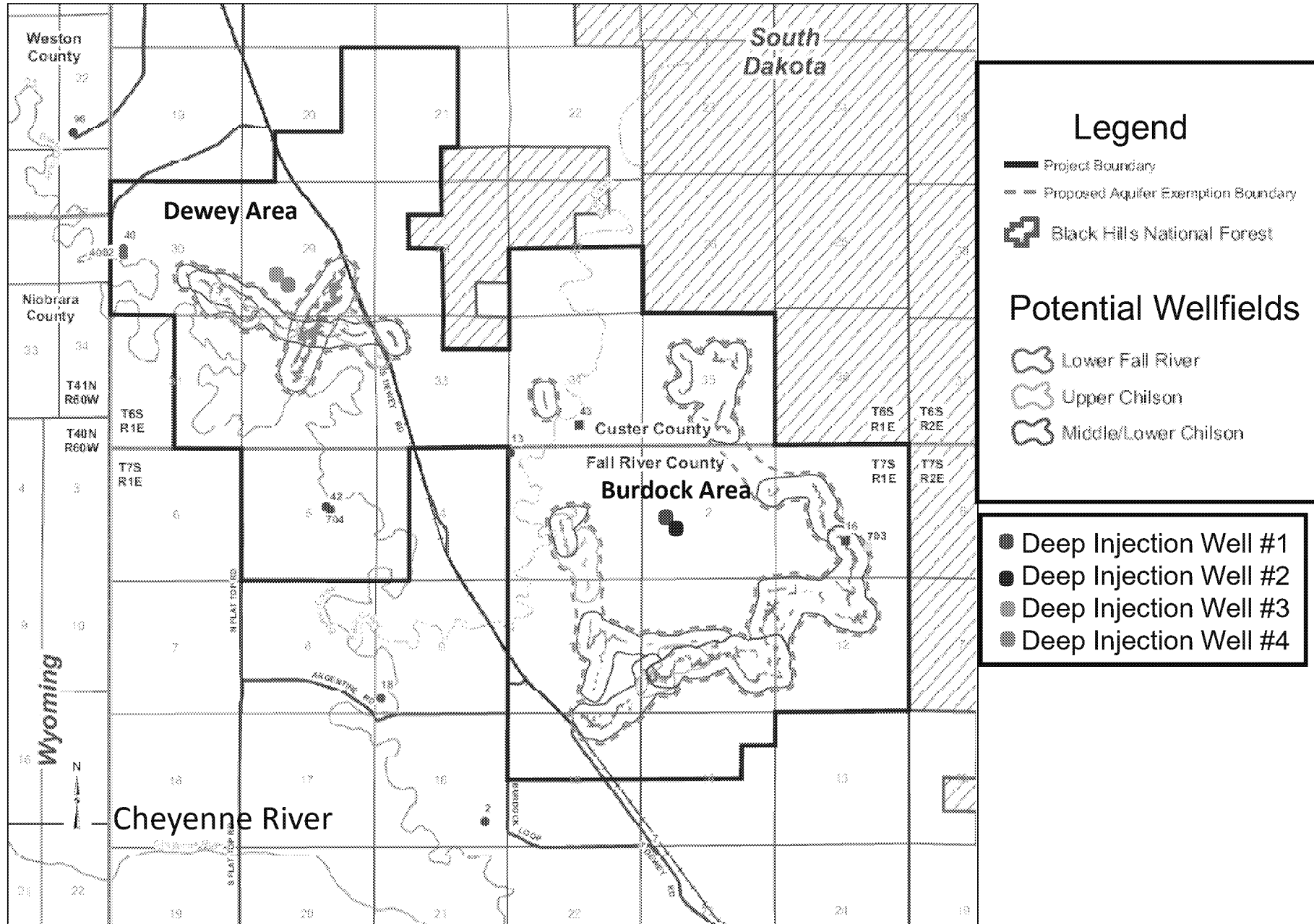
# **UIC Regulations**

- UIC regulations require protection of USDWs around the AE area through extensive monitoring.
- UIC regulations require that no ISR process contaminants cross the aquifer exemption boundary during or after ISR operations.

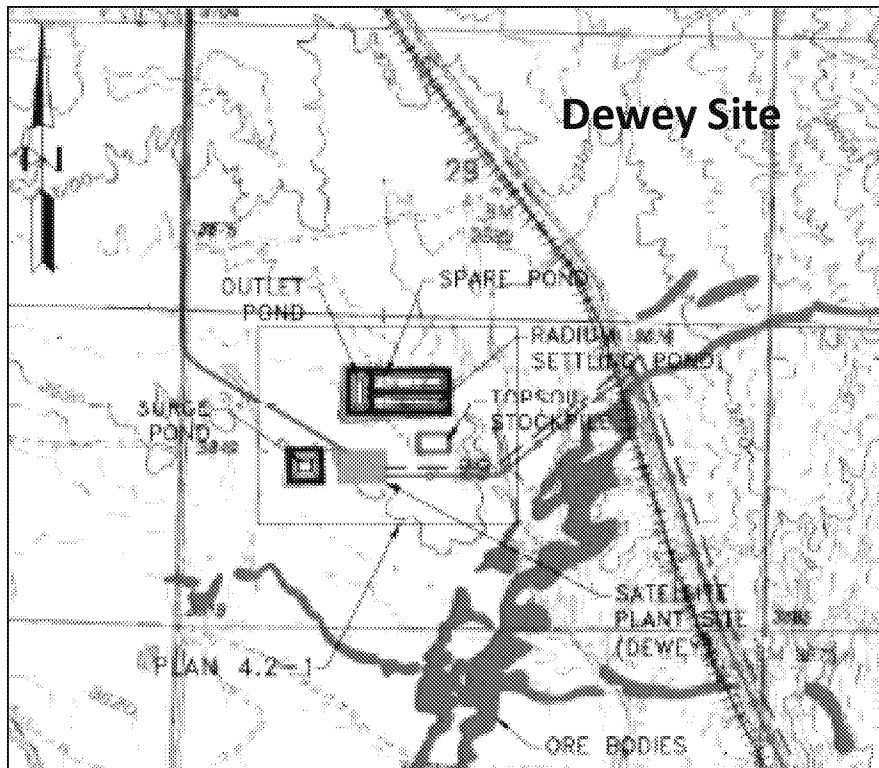
# **UIC Regulations**

- UIC regulations authorize enforcement action when UIC regulations and/or permit conditions are violated.
- Enforcement actions can include requirements for groundwater remediation activities if appropriate.

# LOCATIONS OF THE DEEP INJECTION WELLS

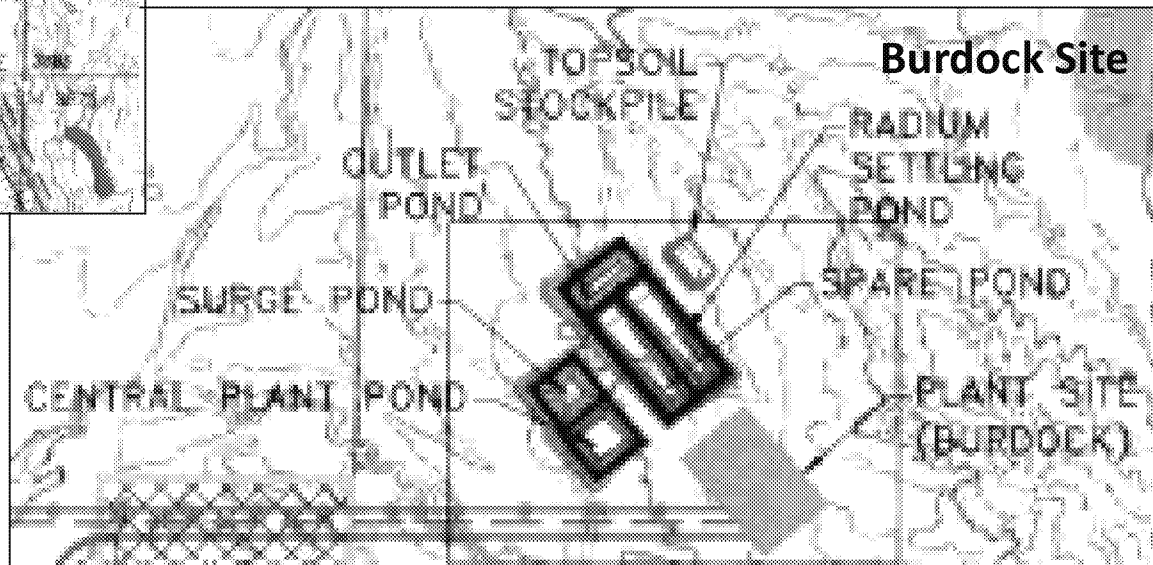


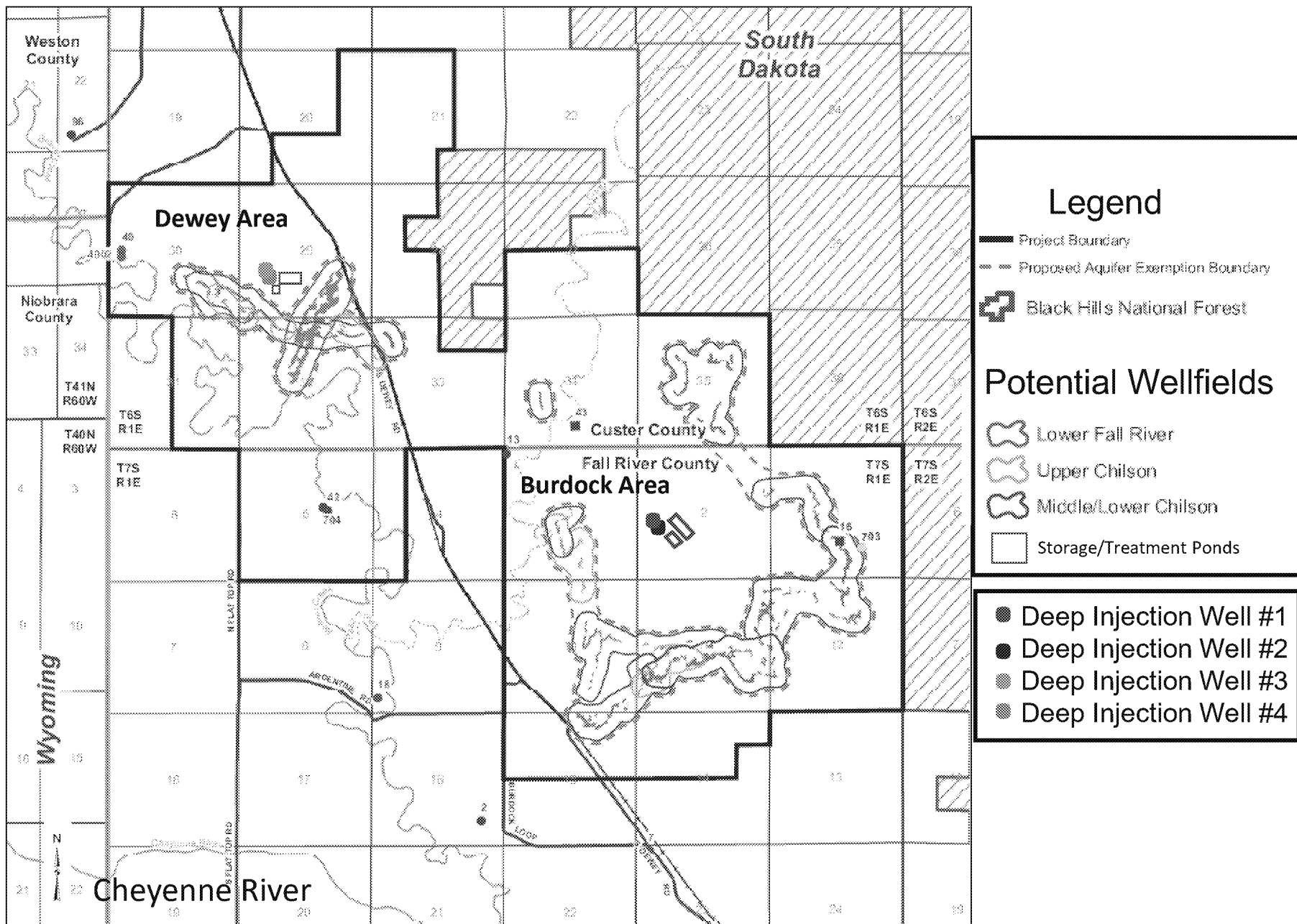
# Treatment and Storage Ponds for Deep Well Injectate



Waste fluids from the uranium recovery process will be treated in the radium settling ponds. After radium removal, the treated water will be stored in the outlet ponds and surge ponds. There will also be a spare radium treatment pond for backup. After treatment, the water will flow to the deep injection wells.

The Burdock Area central plant pond will store brine from the reverse osmosis treatment process used during groundwater restoration before the brine is treated in the radium settling ponds.



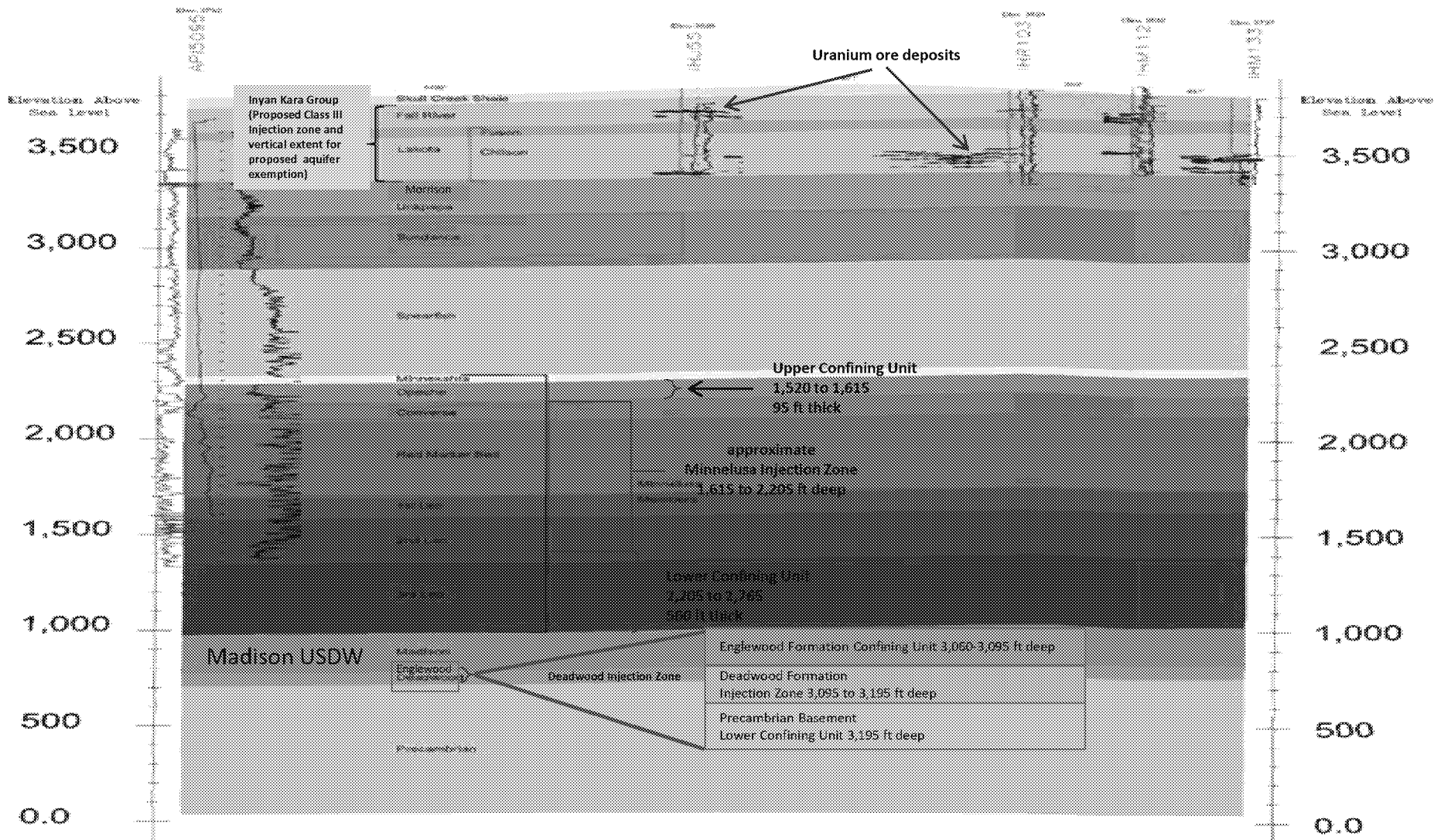


**Figure 4. Map showing proposed locations for the ponds, the four currently proposed deep injection wells and the Class III wellfields.**

# GEOLOGIC CROSS SECTION SHOWING ALL INJECTION ZONES

E  
Northwest  
Dewey

E  
Southeast  
Burdock



# UIC Permitting Process

- After issuance of any draft permit and aquifer exemption decisions, there will be a 60 day public review and comment period.
- Other reviews required in UIC permitting process:
  - *Endangered Species Act,*
  - *National Historic Preservation Act 106 consultation,*
  - *Environmental Justice Analysis,*
  - *Cumulative effects of construction and operation of injection wells.*
- The EPA will hold at least two public hearings in South Dakota.
- The EPA will conduct additional outreach in Tribal communities upon request.

# National Historic Preservation Act

EPA's plans for addressing NHPA obligations:

- Consider the effects of the whole undertaking on historic properties, not just EPA-regulated activities.
- Consult with tribes (and others) during our review.
- Tribes possess special expertise in assessing eligibility of historic properties that possess religious and cultural significance.
- Seek Tribal input on identification of traditional cultural properties, determination of adverse affects and ways to mitigate the adverse affects.

EPA has the option of designating NRC as the lead for this process, or of conducting the review ourselves.

- The EPA is reviewing the historic properties information developed in the NRC process.
- This information is available to the public at <http://adams.nrc.gov/ehd>.

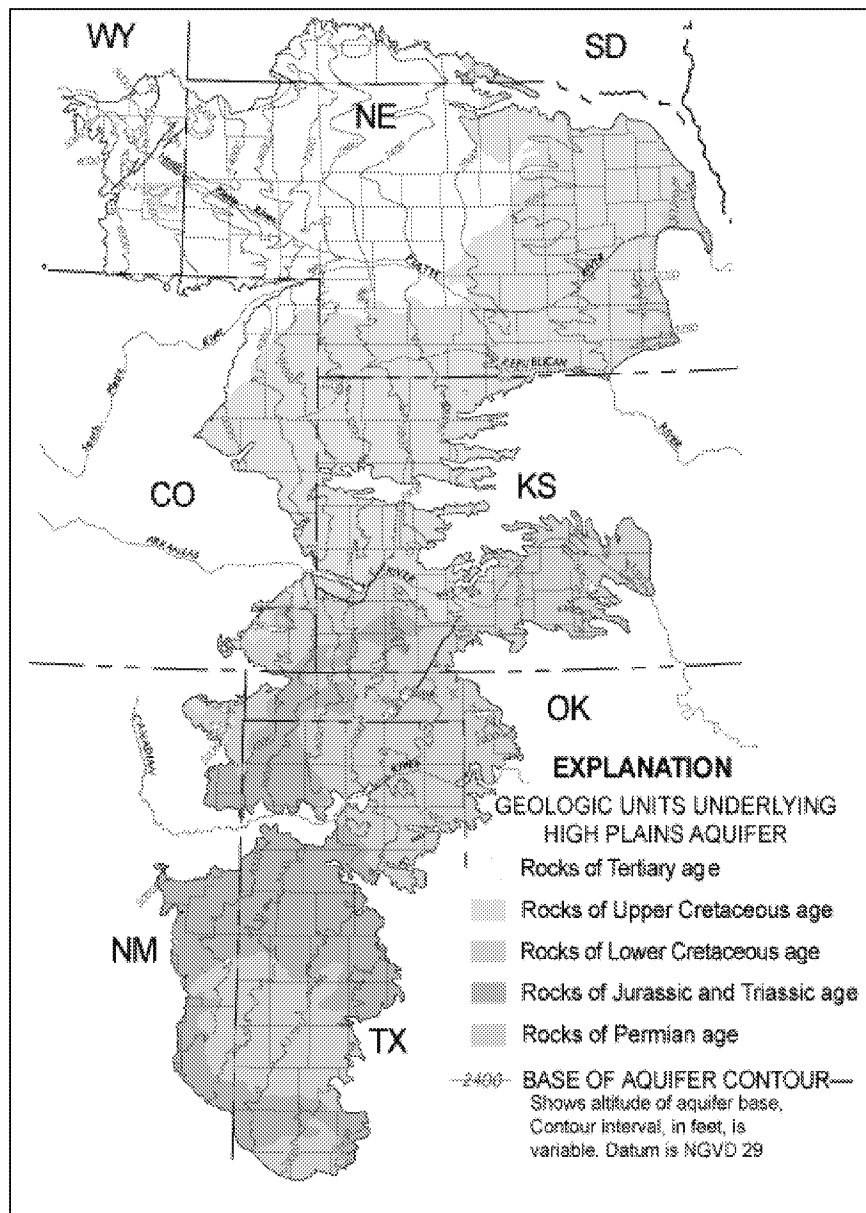
# **Ways in which Tribal Officials Can Be Involved in the UIC Permitting Process**

- Participate in informal and formal government to government consultation.
- Request informational web conferences on topics of concern.
- Participate in the review of the proposed permit and aquifer exemption decisions.
- Attend public hearings.

# Issues Identified through Informal Consultation so far . . .




- Will there be any impacts to the Ogallala Aquifer?
- What are the impacts to places where medicinal or ceremonial plants will be gathered?
- Impacts to groundwater
- Impacts to surface water

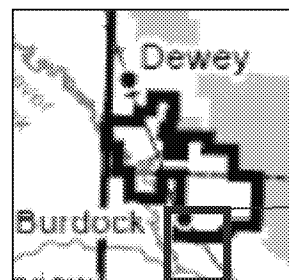
# Extent of the Ogallala Aquifer?



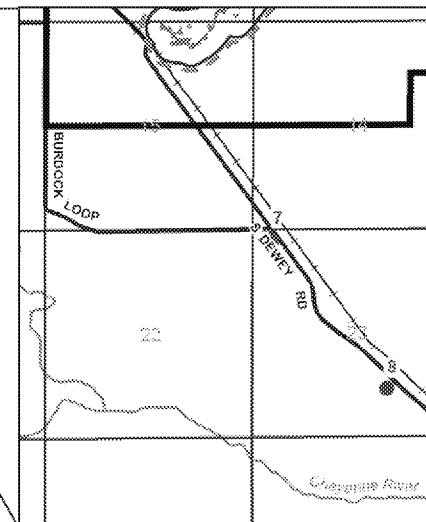
# Will there be any impacts to the Ogallala Aquifer?



-  Ogallala Aquifer
-  Cheyenne River Basin
-  Dewey-Burdock Site



Cheyenne River is 1.3 miles from project boundary & 1.6 miles from aquifer exemption boundary



# Issues Identified through Informal Consultation

- Will there be any impacts to the Ogallala Aquifer?
- What are the impacts to places where medicinal or ceremonial plants will be gathered?
- Impacts to groundwater
- Impacts to surface water

# South Dakota

Black Hills National Forest

Custer County

Fall River County

BLM

BLM

BLM

BLM

BLM

T6S  
R1E

T6S  
R2E

T7S  
R1E

T6S  
R1E

T6S  
R2E

T7S  
R1E

T7S  
R2E

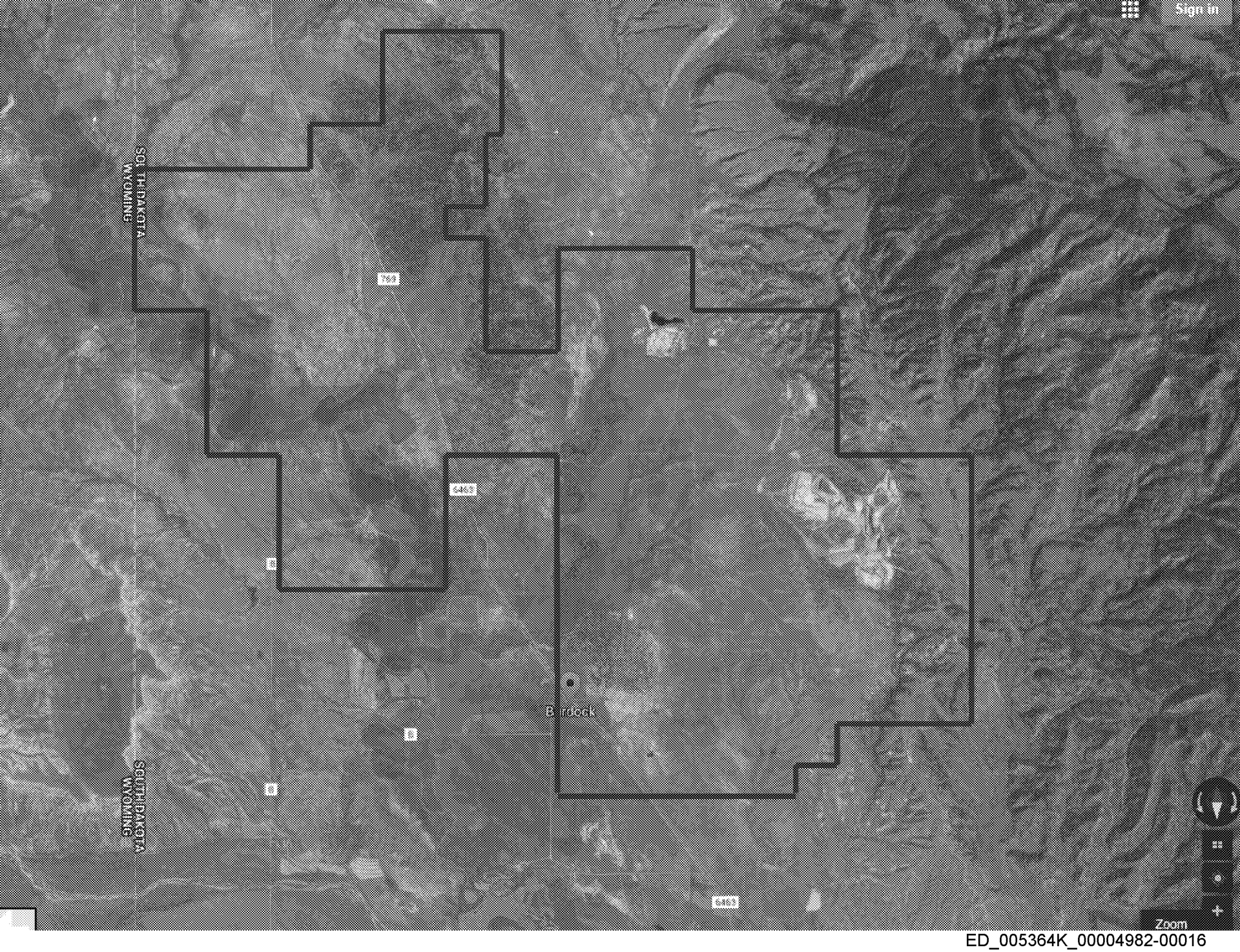
Nebraska County

Fall River County

See inset Map A1 Below for  
Detail of Wells in this Area

See inset Map A2 Below for  
Detail of Wells in this Area

See inset Map A3 Below for  
Detail of Wells in this Area



Zoom

# Issues Identified through Informal Consultation

- Will there be any impacts to the Ogallala Aquifer?
- What are the impacts to places where medicinal or ceremonial plants will be gathered?
- Impacts to groundwater – very stringent permit requirements
- Impacts to surface water

# Issues Identified through Informal Consultation

- Will there be any impacts to the Ogallala Aquifer?
- What are the impacts to places where medicinal or ceremonial plants will be gathered?
- Impacts to groundwater
- Impacts to surface water – UIC area permit regulation requires the EPA to look at cumulative effects of the construction and operation of the additional injection wells.

# **Tribal Cultural Survey – Spring of 2013**

Seven Tribes participated in the field survey at the proposed Dewey-Burdock site:

1. The Santee Sioux Tribe,
  2. The Northern Cheyenne Tribe,
  3. The Turtle Mountain Band of Chippewa Indians,
  4. The Crow Creek Sioux Tribe,
  5. The Cheyenne and Arapaho Tribes of Oklahoma,
  6. The Crow Nation, and
  7. The Northern Arapaho Tribe
- The tribal survey teams identified new artifact discoveries or cultural features of interest to Tribes at 24 previously reported archaeological sites, as well as 47 additional locations.
  - In total, the tribal survey teams identified and investigated 71 tribal sites.
  - These features include isolated artifact finds, animal bone concentrations, stone circles, cairns, and possible fasting sites.
  - 5 features were identified during the field survey as possible gravesites.

# Questions & Discussion

## Contact Information

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